Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.(currently amended) A slider unit with a built-in moving-coil linear motor, comprising a bed supporting thereon a magnet yoke, a table movable in a sliding manner with respect to the bed, a pair of field magnets each having a plurality of poles, each pole having a pole width along the moving direction, said poles being arranged on inwardly facing surfaces of confronting sections of the magnet yoke in such a manner that poles on either field magnet alternate in polarity along a moving direction of the table and also like poles confront each other across an air gap between the field magnets, and a moving-coil assembly mounted to the table to lie in the air gap between the confronting field magnets,

wherein the table is arranged for a sliding movement with respect to the bed through a linear motion guide unit, which is comprised of a guide rail mounted to the bed, and a sliding element fixed to the table,

wherein the confronting sections of the magnet yoke are connected to each other on any one side of widthwise opposing sides thereof along the moving direction,

wherein any adjoining poles of field magnets are chamfered off at their corners coming into abutment against each other and facing the air gap,

wherein the moving-coil assembly is composed of an iron core of platy-configuration extending in the air gap along the moving direction, and at least one set of three-phase armature coils composed of three coils that are wound around the iron core in a direction intersecting the moving direction, and lying succesively in the moving direction and secured to the iron core, whereby the iron core extends through the coils~~whereby a current in the armature coils interacts electromagnetically with a field flux created by the field magnets to force the table moving with respect to the bed~~,

~~wherein the confronting sections of the magnet yoke are connected to each other along any one side of widthwise opposing sides thereof,~~

wherein the moving-coil assembly is supported by arms extending from the table through a sidewise opening left at another side of the confronting sections of the magnet yoke, ~~and~~

wherein the moving-coil assembly is composed of more than one set of armature coils and each set of armature coils has a length in the moving direction that corresponds to one pole width in the moving direction, and

wherein the iron core is formed in a rectangular platy-configuration in cross section and made longer than a combined length, in the moving direction, of the armature coils lying successively in the moving direction, the iron core having a length, in the moving direction, substantially equal to the combined length, in the moving direction, of the armature coils plus one-half of a pole width, and further the iron core is fixed at its fore-and-aft ends to the arms,

whereby a current in the armature coils interacts electromagnetically with a field flux created by the field magnets to force the table moving with respect to the bed.

2-7. (canceled)

8.(currently amended) A slider unit with a built-in moving-coil linear motor constructed as recited in claim 1~~or 3~~, wherein the iron core is made of a lamination of thin steel sheets overlaid one on another.